Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

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Price Cap Performance Review)	CC Docket No. 94-1	OFFICE OF SCORETARY
for Local Exchange Carriers)		

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REPLY COMMENTS OF THE LINCOLN TELEPHONE AND TELEGRAPH COMPANY

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March 1, 1996

EXECUTIVE SUMMARY

Economic theory states that welfare is maximized when prices are capped by the market and returns are allowed to fluctuate accordingly. Therefore, sharing requirements should not cap return, but rather allow end users to receive a portion of the benefits related to increased productivity. Further, sharing requirements must be premised on economic productivity, not accounting rates of return. Correctly crafted sharing requirements would function as an ex-post reduction, complimenting the X-Factor.

There should be multiple X-Factor options to reflect the differences among price cap LECs and their markets. The highest option should be set at LEC industry average productivity without sharing. The lower option(s) should be set at fixed levels below the highest option with correctly crafted economic sharing requirements.

The election of 5.3% X-Factor is not indicative of LEC long term productivity, but rather a function of incorrectly premised sharing requirements. Also, LECs should retain the ability to elect any X-Factor option in an annual filing as this will maximize consumer benefits.

The various X-Factor components should be calculated consistently and over the same time periods. Further, complex and unnecessary adjustments should not be made. Interstate only TFP cannot be measured. There is no reason to retain a CCL adjustment when the X-Factors are based on TFP. OPEBs and "golden handshakes" are valid costs that should be measured. The Christensen Study accounts for the majority of quality improvements, obviating the need for any hedonic adjustments.

MCI's behest to set LEC prices at economic costs is ambiguous, self serving, and beyond the scope of this proceeding.

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REPLY COMMENTS OF THE LINCOLN TELEPHONE AND TELEGRAPH COMPANY

The Lincoln Telephone and Telegraph Company ("Lincoln"), by its attorneys, hereby submits its reply comments in the above-captioned proceeding. Lincoln is combining related issues from the 2nd Further Notice^{1/2} and 4th Further Notice^{2/2} as permitted under the Order on Motion for Extension of Time^{3/2}.

I. INTRODUCTION

Lincoln's reply comments respond to certain issues raised by commenting parties and revolve around five themes. First, there should be multiple X-Factor options in recognition of the differences in price cap LECs and their markets. Second, lower X-Factor options should include

Price Cap Performance Review for Local Exchange Carriers, Second Further Notice of Proposed Rulemaking, CC Docket No. 94-1, FCC 95-393, Released September 20, 1995. ("2nd Further Notice")

Price Cap Performance Review for Local Exchange Carriers, Fourth Notice of Proposed Rulemaking, CC Docket No. 94-1, FCC 95-406, released September 27, 1995. ("4th Further Notice")

Price Cap Performance Review for Local Exchange Carriers, Order on Motion for Extension of Time, CC Docket No. 94-1, DA 95-2340, Released November 13, 1995. ("Order on Motion for Extension of Time")

properly crafted sharing parameters that will closely approximate the index movements of LECs choosing the no sharing X-Factor option, under similar levels of achieved productivity. Third, annual elections of all X-Factor options will maximize end user benefits. Fourth, all price cap components should be calculated in a consistent manner and over the same time periods. Fifth, rate of return concepts do not belong in the long term price cap plan.

II. BACKGROUND

Prior to price cap regulation, LEC access prices were regulated based on accounting rate of return. Under that form of regulation, return was controlled and prices were allowed to fluctuate accordingly; there was little, if any, incentive for a company to become more productive or efficient. This runs counter to economic theory which emphasizes that efficiency is maximized when prices are controlled by the market and returns are allowed to fluctuate. As a result, regulation is now moving away from accounting forms of cost-plus regulation, such as rate of return, and towards more economically-based models, like price caps. Price cap regulation is a transition mechanism to competition, and, as the Commission has recognized, should be eliminated as competition continues to develop. Lincoln's reply comments are consistent with the notion that price caps should be structured to maximize efficiency given an imperfect state of competition.

III. THE INCLUSION OF MULTIPLE X-FACTOR OPTIONS WILL LEAD TO INCREASED CONSUMER BENEFITS.

As was mentioned above, price cap regulation should seek to mimic the price discipline of competitive markets to the extent possible. Ideally, price caps would be tailored to the individual markets served by each LEC. However, this is clearly not possible. Some parties might suggest the calculation of X-Factors based upon individual company data. This would move price

cap regulation away from the competitive model because the X-Factor should measure the price restraint that competition imposes on LECs, not eliminate any incentive for LECs to increase efficiency. Further, this would likely open the price cap process to accusations that LECs are "gaming" the process. The only practical surrogate for the price discipline of competition is to start from the average productivity of all LECs. That is the only way to ensure that no LEC will be able to significantly influence the results.

Several parties argue that there should be only one X-Factor option, disregarding the heterogeneity of price cap LECs. Arguments for the application of a single X-Factor to all price cap LECs could only be valid if all LECs competed against each other in all markets. That certainly is not the case. LECs, for the most part, do not operate in the same markets. A firm realizes earnings benefits when it exceeds the average productivity of firms in its respective markets, not when it exceeds the average productivity of firms in other markets. Lincoln's markets bear little resemblance to the metropolitan markets of Atlanta. As LEC markets continue to diverge, so will the technologies used to meet customer needs. Lincoln does not compete nationally and should not be regulated on such a basis. Lincoln competes in 22 counties in southeastern Nebraska. The needs and demands of customers in Atlanta, Washington D.C., or Los Angeles will not drive the needs of customers in Nebraska.

A single X-Factor option will diminish the likelihood of additional LECs electing price cap regulation. Since price cap regulation maximizes social benefits and is the proper transition mechanism to competition, the Commission should seek to make price caps attractive to a broader range of companies. Multiple X-Factors with correctly crafted sharing requirements will make price caps viable for more LECs while continuing to protect end users.

For these reasons, limiting LECs to a single X-Factor option will not further Commission goals. At a minimum, there should be at least one option below the industry average. The X-Factor(s) at the lower option(s) should be set at fixed levels below the industry average and contain economic sharing requirements. Lincoln recommends a lower X-Factor option at 75% of the industry average. Coupled with a correctly crafted economic sharing requirement, end users could see benefits in excess of the highest X-Factor option if the productivity of a LEC at a lower X-Factor option(s) substantially exceeds the inherent productivity in the selected X-Factor.

IV. A PROPERLY CRAFTED SHARING SYSTEM WILL ALLOW EFFICIENCIES TO BE MAXIMIZED UNDER DIFFERENT X-FACTOR OPTIONS.

The FCC's current form of LEC price cap regulation has two primary means of controlling prices. Ex-ante, through a price reduction by the X-Factor component, and ex-post, through sharing requirements. Both components accomplish exactly the same thing: a percentage reduction in price cap indices. The only differences are in the timing of the reductions and that X-Factor reductions are permanent, while sharing is, currently, a one year reduction based on performance in the preceding year. Any sharing requirement in the long term price cap plan should be crafted to encourage LECs that cannot elect the highest X-Factor option to operate as efficiently as possible and, therefore, to maximize the ex-post reductions⁴. Further, sharing should not be used as a stick to beat LECs into higher X-Factors. Sharing should function as a backstop mechanism, allowing end users to share in one-time productivity gains by LECs that are unable to sustain or elect a higher level of productivity.

^{4&#}x27; Any benefits derived by end users from access rate reductions are dependent upon IXC willingness to pass the reductions through to interstate toll rates.

A two option price cap plan consisting of a higher X-Factor without sharing and a lower X-Factor with an economic sharing requirement could produce virtually identical price cap index levels if LECs under both options achieve the productivity inherent in the higher X-Factor option. For example, with X-Factors of 4.0% and 3.0%, if a LEC chose the 3.0% X-Factor but achieved productivity of 4.0%, a sharing requirement could force an additional 1.0% reduction in price cap indices. This would result in that LEC having similar price cap index levels with price cap companies that chose the higher X-Factor option. This also demonstrates the need for any sharing requirement to be economically based. Accounting based rates of return do not measure the economic productivity of a firm, most likely resulting in the application of an incorrect sharing reduction. If a LEC choosing the 3.0% X-Factor achieved productivity of 4.0% but the accounting rate of return distorted this value to indicate that the LEC achieved 5.0%, the sharing reduction would be twice what it should have been. If economic productivity is the target, LECs should be measured against an economic yardstick, not accounting rates of return.

Price cap regulation should not cap returns, i.e., 100% sharing, because this removes the incentive to achieve higher productivity gains and reimposes rate of return regulation. However, LECs electing lower X-Factor option(s) should not receive the same reward as LECs that "step up" to the highest option. The application of 50/50 sharing on all productivity above the selected X-Factor would serve to limit returns achieved by LECs at lower option(s) while still retaining some incentive for these LECs to achieve higher productivity. Further, economically based sharing will accurately measure productivity, allowing end users to benefit while not penalizing LECs for unexpected or non-existent gains.

V. THE CURRENT ELECTION OF THE 5.3 X-FACTOR IS NOT INDICATIVE OF LEC PRODUCTIVITY.

When a LEC chooses a price cap option, it does not simply look at the X-Factor and make a determination that it can achieve that level of productivity. As discussed above, there are two primary factors in a price cap option selection, the X-Factor and sharing. In addition, there are many secondary considerations such as exogenous costs, inflation forecasts, banding limitations, market pressures, customer requirements, pricing goals, etc. It is absurd to analyze the current election of the 5.3% X-Factor in a vacuum and surmise that it demonstrates that LEC productivity is at least 5.3%. This is akin to determining that a person, who chooses to lose an arm instead of his or her life, does not value that arm. This is clearly the conclusion reached by AT&T and The Ad Hoc Telecommunications Users Committee ("Ad Hoc") as evidenced by the dramatic increases in their measures of LEC productivity. Further, the 5.3% elections were made for only one year.

Rather, the election of the 5.3% X-Factor option demonstrates that the other primary component of price cap regulation, the sharing requirements, were not correctly crafted. The accounting based sharing requirements contained in the interim price cap plan constrain and eventually cap return and, therefore, reimpose rate of return regulation. Further, these sharing requirements are based on interstate rates of return which have no bearing on the economic productivity of a firm. As discussed above, price cap theory dictates that prices should be capped and returns allowed to fluctuate. The price cap options with sharing requirements cap both prices and returns, which is an improper result. The existence of a problem is further supported by the fact that no LECs elected the 4.7% X-Factor option. A correctly crafted sharing requirement could function similarly to an X-Factor, as discussed earlier. A sharing requirement that does not

ultimately cap returns would continue to provide incentives for LECs to become more efficient, while providing increasing benefits to end users.

VI. LECS SHOULD RETAIN THE ABILITY TO MAKE ANNUAL ELECTIONS OF ALL X-FACTOR OPTIONS.

LECs should be allowed to elect any X-Factor option in an annual filing. LECs will not use annual elections to "game" the process as asserted by AT&T, Ad Hoc and MCI. Price cap regulated services currently account for less than 25% of LEC business. Companies do not make investment and expenditure decisions based on only one quarter of their business. Why risk the majority of a business in an attempt to "game" price cap regulation that effects less than one-quarter of provided services? The needs of the relevant markets will drive LEC business decisions, not interstate access service regulation.

Further, the X-Factor results in a permanent reduction in price caps while LECs, at best, derive only short term benefits from a no sharing option. As a result, in the long term, any one-time benefits derived by LECs are outweighed by the permanent reduction in interstate access rates. As discussed above, a price cap plan that contains multiple X-Factor options and correctly crafted sharing requirements eliminates any concern that a LEC might realize any excessive short term benefits from annual elections. In this environment if a LEC's achieved productivity is substantially higher that the productivity inherent in the selected X-Factor, the ex-post reduction will most likely exceed the reduction that would have been caused by the highest X-Factor.

If the election of the interim plan's 5.3% X-Factor option was permanent, Lincoln asserts unequivocally that it would not have elected this factor. The 5.3% X-Factor is not indicative of Lincoln's underlying productivity. This is probably true for all other price cap LECs as well.

Making the election of the highest X-Factor option a permanent choice would only serve to deny end users the benefits derived through increased price reductions. The ability to elect higher X-Factor options for one year, coupled with a correctly crafted sharing requirement, will encourage LECs to increase productivity in the periods that higher productivity gains can be achieved. Making the election of the highest X-Factor option permanent will only serve to deny benefits to end users or to penalize LECs for attempting to achieve higher productivity gains.

VII. X-FACTORS COMPONENTS SHOULD BE CALCULATED CONSISTENTLY AND WITHOUT COMPLEX AND UNNECESSARY ADJUSTMENTS.

As is discussed above, the long term price cap plan should contain at least two X-Factor options. The higher option should consist of an X-Factor set at the industry average unit cost change, calculated on a five year moving average basis, and no sharing requirement. The lower option should consist of an X-Factor set at 75% of the higher X-Factor option and an economic sharing requirement.

All components of the X-Factor should be calculated over the same time period and in a consistent manner. A fair time period should represent the average business cycle, which appears to be approximately five years. Choosing different time periods when determining the components of X-Factors will lead to a contentious process. Further, the different components of the X-Factor need to be calculated in a consistent manner. If LEC TFP results are adjusted and calculated in a manner different from U.S. TFP and LEC input inflation, then the results will be meaningless. Different formulas and methodologies produce different results. The Christensen Study was calculated in a manner consistent with the BLS measure of U.S. TFP. AT&T and Ad Hoc

calculate LEC TFP results in manners that differ from the Christensen and BLS studies without providing any rationale as to why the differences will not bias the results.

A. INTERSTATE ONLY TFP CANNOT BE MEASURED.

An interstate only TFP study cannot be performed because no way exists to separate the input function in an economically meaningful manner. AT&T characterizes as "conservative" its assumption that interstate costs grow at the same rate as non-interstate costs. This assumption is erroneous and invalid. Economic logic would indicate that if one service is growing faster, than another, its costs would also be growing faster. If interstate demand is growing faster, it will drive more related investment into switching and trunking facilities. Even for existing facilities, higher interstate demand growth will cause additional circuits to be "turned up" requiring both more labor and terminal equipment. Therefore, an assumption that interstate input costs are growing at the same rate as total company input costs is completely invalid. As long as no way exists to separate interstate costs in an economically meaningful manner, interstate input cost growth cannot be measured

B. THERE EXISTS NO REASON TO RETAIN A CCL ADJUSTMENT WHEN THE X-FACTORS ARE BASED UPON TFP.

There exists no reason to retain a carrier common line adjustment within the long term price cap plan, because the Christensen Study and other measures of TFP give all the benefits of output quantity growth in excess of input growth to IXCs. Ironically, AT&T and Ad Hoc, in prior proceedings within this docket, advocated lowering the X-Factors if carrier common line output

⁵/ See AT&T Comments, App. A at 27.

growth solely benefited IXCs⁶ This small piece of consistency was apparently overlooked in the process of drastically increasing their measures of LEC productivity from previous levels. As Attachment A demonstrates, if output quantity growth for CCL is determined based on minute growth, and input growth is a function of line growth, i.e., non-traffic sensitive, then the resulting TFP differential is equal to the CCL adjustment factor. Since the Christensen study uses minute growth to determine CCL output growth, all benefits of CCL growth flow to IXCs through increased X-Factors. So, there is no reason to include a CCL adjustment in the long term price cap plan. The inclusion of a separate CCL adjustment would double count CCL productivity and be confiscatory.

C. INPUT PRICES AFFECT LEC UNIT COSTS IN THE SHORT TERM.

Input prices do affect LEC unit cost changes in the short term; so there well may be valid reasons for including a measure of input prices in the LEC price cap plan. Input prices must be included with the knowledge that they represent a two-edged sword that cuts both ways. Input prices will very likely result in price cap increases in the future. Further, economic analysis indicates that an input price differential exists only in the short term. Therefore, over the long term LEC input price growth will be roughly equivalent to U.S. input price growth.

D. OPEBS SHOULD BE REMOVED FROM THE INPUT SERIES ONLY IF LECS ARE AFFORDED EXOGENOUS TREATMENT FOR THESE COSTS.

Several parties seek to mire input prices in the same contentious quagmire that has always plagued exogenous changes, by advocating "adjustments" to the input series in attempts to

Lincoln continues to dispute the finding that LECs do not stimulate CCL demand. LEC access charges represent a significant portion of end user toll prices. Moreover, LECs keep and add end users to the telephone networks, not IXCs, through below cost local rates.

increase TFP growth. One item that has been raised are costs related to OPEBs. Arguments are made that this is a one-time event and should not be allowed into the measure of LEC unit cost changes. The fact that OPEB costs are a one-time event is irrelevant. If input prices are to be predictive solely of future levels, then no input price component should be included in price cap regulation. As advocated by USTA, an input price differential will not exist in the long term. Further, historical input price growth volatility prevents its use to predict future levels. The relevant issue is whether LECs are accorded exogenous treatment for OPEB costs. If LECs are eventually allowed to recover these costs through an exogenous adjustment, then these costs should be removed from the applicable input series. If not, OPEBs are costs that should be included in the measure of input growth. If the door to adjustments in input series, or any other component of price cap regulation, is opened, the Commission will again need to adjudicate complicated and contentious issues related to price cap regulation that may result in a plan that is not administratively simple. The Commission can use the inclusion of costs in the input price series to significantly eliminate the need for any exogenous treatment. Another criteria could be added to the exogenous test that requires costs eligible for exogenous treatment to have been excluded from the measure of LEC unit costs.

E. COSTS RELATED TO INCREASING LEC EFFICIENCY SHOULD NOT BE REMOVED FROM THE INPUT SERIES.

Another item that AT&T and Ad Hoc want removed from the input price series is the so called "golden handshakes" or costs related to the work force reductions that most LECs are undertaking. First, this is a legitimate business expense incurred by the LECs and other firms. Further, LECs have not been afforded exogenous treatment for these costs. Again, AT&T and Ad

Hoc argue incorrectly that this is a one-time occurrence. As stated above, the fact that a cost is a one-time occurrence is irrelevant unless the input prices are meant to be solely predictive. Also, if, hypothetically, the effects of work force reductions should be removed from the input price series, which will bias input price growth downward, then symmetry would dictate that the reduction in labor quantity should also be removed. Using AT&T's and Ad Hoc's logic, the reduction in employees that gave rise to the "golden handshakes" costs is also a one-time event. It is irrational to exclude one component of an event yet include another. In addition, these are both examples of the items that are contrary to the Commission's goal of an administratively simple price cap plan.

F. HEDONIC ADJUSTMENTS ARE NOT NEEDED AND BIAS TFP RESULTS.

AT&T and Ad Hoc next make "hedonic" adjustments to the capital price series to reflect the increased output achieved for each dollar expended. Hedonic adjustments attempt to quantify quality improvements that have not been fully reflected in prices. While they may be supported in theory, the hedonic adjustments made by AT&T and Ad Hoc ignore the realities of the situation. First, hedonic adjustments, made to reflect greater output production, are appropriate only if the increases in output growth have not already been measured. The Christensen Study, through its use of deflated revenues, already accounts for the majority of hedonic benefits. Attachment B demonstrates that if quality improvements result in increased output quantity growth with respect to input cost growth, the Christensen Study already measures the increase in productivity. Further, Attachment B shows that the Christensen Study, through use of deflated revenues as the proper measure of output, includes in its measure of output growth increases related to new services, such as CLASS. Secondly, the BLS U.S. TFP study, used to develop a TFP differential, does not include the hedonic adjustments proposed by AT&T and Ad Hoc, introducing a very deliberate bias into

their X-Factor results. Finally, this is another example of the complexities the Commission is trying to avoid. Hedonic adjustments are and will be contentious and time consuming and serve no purpose because the measures of output growth in the Christensen Study already take into account nearly all changes related to hedonic benefits.

VIII. SETTING LEC PRICES AT ECONOMIC COSTS ARE BEYOND THE SCOPE OF THIS PROCEEDING.

MCI makes repeated reference to setting LEC prices at economic levels without providing specific details. Besides being beyond the scope of this proceeding, this vague suggestion leads to some interesting questions. MCI could be referring to incremental costs, but incremental costs do not cover the entire costs of a firm and only represent a price floor. Another economic concept is Ramsey pricing or allocative efficiency, a concept in the past that MCI appears to have opposed. One could also assume that MCI is alleging that LECs booked costs are too high. Lincoln is proud of providing service to all customers and makes no apologies for doing so. Ironically, in the past MCI has consistently argued against depreciation reform that would have reduced LEC booked costs. It appears that MCI wants access to all customers, but does not want to pay a fair price.

IX. CONCLUSION

There should be multiple X-Factor choices with the highest option having no sharing requirements and the lower option(s) have a correctly crafted economic sharing mechanism. Also, the Commission should not use sharing requirements as a stick to beat LECs into selecting higher X-Factors, but rather as means to return a portion of achieved productivity in excess of the selected X-Factor to end users. This should be performed in an economic manner that retains the incentives

for LECs to maximize one-time productivity gains. Also, there should be multiple X-Factor choices with the highest option having no sharing requirements and the lower options having some form of economic sharing. LECs should be allowed to elect all options during each annual filing. This will provide the proper incentives for LECs to elect the appropriate option and return the most benefits

to end users.

All components of the X-Factors, such as TFP, input price, etc., should be calculated in a consistent manner and over the same time periods. Finally, the Commission should eliminate or replace all aspects of rate of return regulation in the current price cap plan. Lincoln urges the Commission to adopt the suggestions contained herein.

Respectfully submitted,

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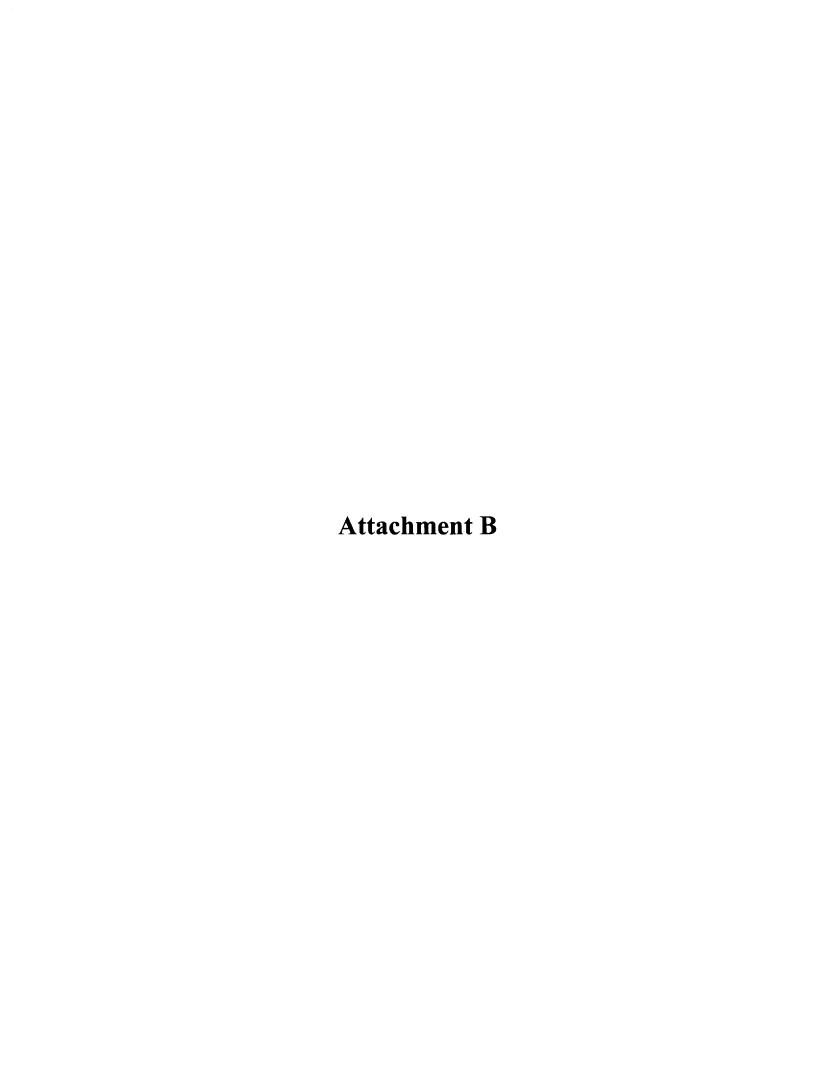
March 1, 1996



Why TFP eliminates the need for a CCL adjustment

<u>Ln#</u>	<u>Description</u>	<u>Source</u>	
1	Minute Growth	Hypothetical	6.00%
2	Line Growth	Hypothetical	2.00%
3	Common Line Expense Growth (Assumed to be a function of line growth)	Line 2	2.00%
4	Christensen Study Output Growth	Line 1	6.00%
5	Christensen Study Expense Growth	Line 3	2.00%
6	Christensen Study TFP Growth	Line 4 - Line 5	4.00%
7	Minute Growth	Line 1	6.00%
8	Line Growth	Line 2	2.00%
9	CCL Adjustment	Line 7 - Line 8	4.00%

- To the extent CCL costs are not a function of CCL demand, the Christensen TFP Study accounts for the difference.
 - The Christensen TFP Study measures CCL output as minute growth.
 - The Christensen TFP Study measures cost growth based upon what is actually booked.
 - To the extent a difference exists between actual output and input growth in CCL or any other service, the Christensen TFP Study measures it.
- An X-Factor based on the Christensen TFP Study will already include an amount equivalent to the existing CCL adjustment.



How the Christensen Study accounts for quality improvements

<u>Ln#</u>	Description	Source	Year 1 (A)	<u>Year 2</u> (B)	Growth Rate (C)=Log(B/A)
1	Minutes	Hypothetical	1,000,000	1,050,000	4.88%
2	Switch Cost	Hypothetical	\$500,000	\$510,000	1.98%
3	Minute/Dollar	Line 1 / Line 2	2.00	2.06	2.90%
4	TFP Growth	Line 1 - Line 2	N/A	N/A	2.90%

- If output (minutes) are growing faster than costs, i.e. a company is buying more capacity with each dollar, then the Christensen TFP Study shows this as increased TFP growth.
 - If a firm's output is growing at 4.88% while costs are only growing at 1.98%, the firm is receiving a quality improvement
 - The Christensen TFP shows an increase in TFP equivalent to the quality improvement.

How the Christensen Study accounts for quality improvements

<u>Ln#</u>	Description	<u>Source</u>	<u>Year 1</u> (A)	<u>Year 2</u> (B)	Growth Rate (C)=Log(B/A)
1	Lines	Hypothetical	100,000	102,000	1.98%
2	Local Rate	Hypothetical	\$10.00	\$15.00	N/A
3	Local Rev.	Ln1 * Ln2	\$1,000,000	\$1,530,000	N/A
4	Deflated Rev.	Ln3 / Ln2	100,000	102,000	1.98%
5	CLASS Rev.	Hypothetical	\$0	\$15,000	N/A
6	Total Rev.	Ln3 + Ln5	\$1,000,000	\$1,545,000	N/A
7	Deflated Rev.	€n6 / Ln2	100,000	103,000	2.96%

- When measured over a fixed set of services deflated revenue growth will be equal to output quantity growth.
- When a new service is added to the set of services being measured, i.e., the firm received a quality improvement, deflated revenue growth reflects the change as increased output growth.

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Reply Comments of The Lincoln Telephone and Telegraph Company was sent by first-class mail, postage prepaid, this 1st day of March, 1996, to each of the following:

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